

Utah Achievement Trends

How Are We Doing?



SCIENCE

8th Grade Performance

8th Grade Science ACHIEVEMENT

The bottom line...

- Grade 8 Science is strong, but work remains.
- Overall, Utah 8th grade NAEP* science performance is significantly higher than the nation. Utah is also significantly higher than the nation in most subgroups.
- Although higher than the nation, over the last several years Utah NAEP science performance has been level.
- There are also significant achievement gaps for Latinos, English language learners, and students with disabilities in NAEP 8th grade science.
- The Utah Core CRT** for science provides a slightly different trend than NAEP. Almost every 8th grade group on the Core CRT Science assessment is demonstrating some gains.
- The achievement gap appears to be narrowing for Pacific Islanders, Latinos, and African Americans. This is an encouraging pattern for these groups.

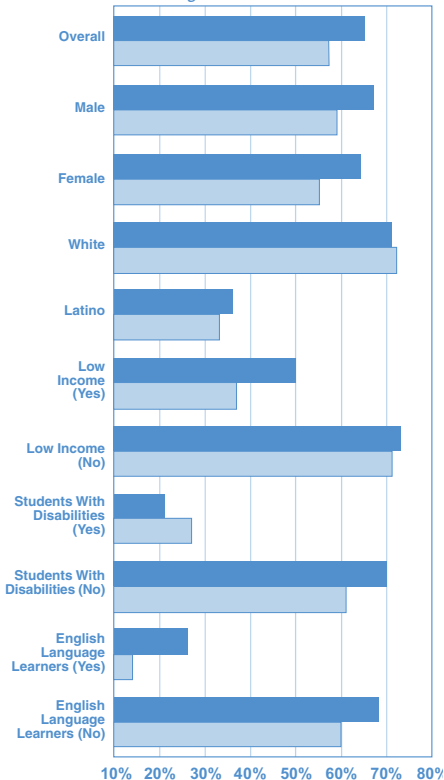
* NAEP—The National Assessment of Educational Progress. A representative sample of Utah 8th grade students take NAEP every two years. To learn more, go to <http://nces.ed.gov/nationsreportcard/>.

** Utah Core CRTs—A state-developed assessment specifically designed to measure student understanding of the Core Curriculum.

NAEP 8th Grade Science Performance

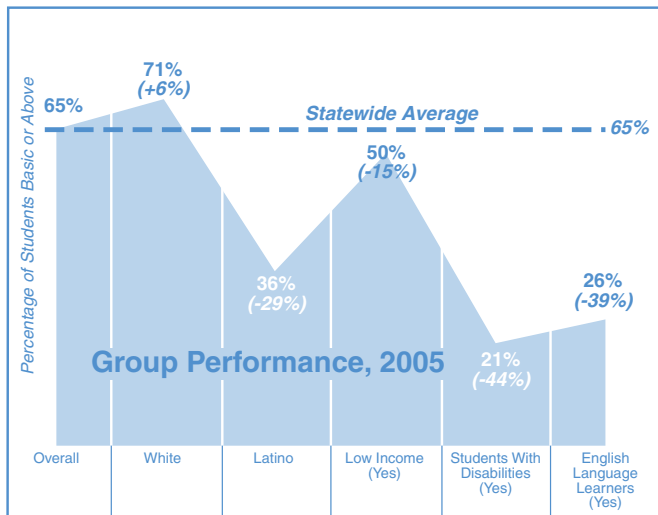
■ Utah ■ Nation, 2005

Percentage of Students Basic or Above



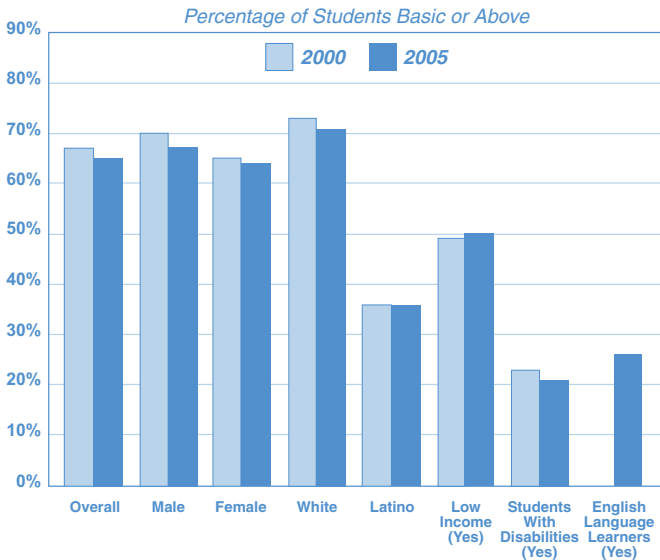
- Overall there is strong Utah 8th grade science performance, but work remains.
- Utah maintains a significant performance advantage over the nation in most (7 of 11) groups.
- In particular, Utah's male and female students, low-income students, and English language learners outperform students nationally in 8th grade science.
- There are substantial achievement gaps for both Utah and the nation.

Utah's 2005 NAEP 8th Grade Science ACHIEVEMENT GAP



- There are significant achievement gaps for Latinos, English language learners and students with disabilities in 8th grade science.
- The NAEP achievement gaps are substantial; the achievement gap in percentages basic or above ranges from -15% to -44% for these groups.
- This 8th grade achievement gap is not unique to NAEP. These groups have similar achievement gaps as measured by the Utah Core CRTs (see the Utah Core CRT data table) and the Iowa Test of Basic Skills (ITBS).

UTAH'S NAEP 8th Grade Science Performance



- Overall performance for Utah remains level statewide and for almost every subgroup. Utah still maintains strong performance compared to the nation (see the NAEP data table).
- The achievement gap remains level over this same period of time.
- Nationally, 8th grade science performance is also level for most groups from 2000 to 2005 (see the NAEP data table).

Utah NAEP Science

Grade 8

Achievement—Percentage at or Above Basic

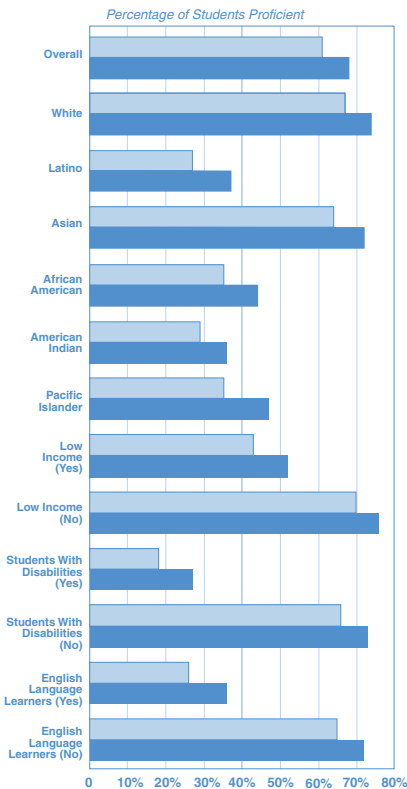
Group	Utah				Nation			Utah vs. Nation 2005	Sig ^d
	2000	2005	Dir ^c	Imp ^b	2000	2005	Dir ^c		
Overall	67% ^a	65%	down	2 —	57%	57%	level	8%	*
Males	70%	67%	down	3 —	60%	59%	level	8%	*
Females	65%	64%	level	—	54%	55%	level	9%	*
White	73%	71%	down	2 —	72%	72%	level	-1%	*
African American	—	—	—	—	24%	27%	up	3	
Latino	36%	36%	level	—	31%	33%	up	2	*
Low Income (Yes)	49%	50%	level	—	32%	37%	up	5	*
Low Income (No)	72%	73%	level	—	70%	71%	level	2%	
Students With Disabilities (Yes)	23%	21%	down	2 —	25%	27%	up	2	
Students With Disabilities (No)	71%	70%	level	—	60%	61%	level	9%	*
English Lang. Learners (Yes)	—	26%	—	—	11%	14%	up	3	
English Lang. Learners (No)	69%	68%	level	—	59%	60%	level	8%	*

- a **Percentage** indicates the percentage of 8th grade science students who scored basic or above on the NAEP assessment.
- b **Improving** means an increase in the percentage of students scoring basic or above on NAEP.
- c **Direction** indicates the change in percentage of students who scored basic or above between 2003 and 2005.
- d The asterisk indicates a statistically **significant** difference ($p < .05$) between Utah in 2005 and the nation in 2005.

“Utah Achievement Trends” is a Utah NAEP publication. This report is available at www.schools.utah.gov/eval/Info_NAEP.asp.

8th Grade Performance Trend

Utah Science Core CRT



2004 2006

- There is strong performance by 8th grade students in science. Statewide and for all groups there is a consistent upward trend in student proficiency from 2004 to 2006.
- The Utah-developed Core CRT for science provides a slightly different pattern than the NAEP science assessment. There are several differences between the NAEP science framework (skills tested) and the Utah Core Science Curriculum. This needs to be considered when examining these results.
- Considerable achievement gaps persist in 8th grade science. The largest achievement gaps are for students with disabilities.
- The achievement gap appears to be narrowing for Pacific Islanders, Latinos and African Americans and English language learners. This is an encouraging pattern for these groups.

Utah Core CRT Science

Grade 8

Achievement—Percentage of Students Proficient

Group	Percentage ^b			Utah Direction 2004-06	Gap 2006 State Avg – Group
	2004	2005	2006		
Overall ^a	61.0%	63.1%	68.3%	up 7	—
White	66.7%	69.0%	74.3%	up 8	+6.0%
Latino	27.0%	30.3%	36.6%	up 10	-31.7%
Asian	64.3%	67.4%	71.6%	up 7	+3.3%
African American	34.8%	39.6%	44.4%	up 10	-23.9%
American Indian	29.2%	26.4%	36.0%	up 7	-32.3%
Pacific Islander	35.2%	36.3%	47.1%	up 12	-21.2%
Low Income (Yes)	43.1%	45.7%	51.5%	up 8	-16.8%
Low Income (No)	69.6%	72.3%	76.4%	up 7	+8.1%
Students With Disabilities (Yes)	17.8%	20.7%	26.9%	up 9	-41.4%
Students With Disabilities (No)	65.7%	68.0%	72.9%	up 7	+4.6%
English Lang. Learners (Yes)	26.4%	28.3%	36.3%	up 10	-32.0%
English Lang. Learners (No)	64.9%	67.0%	72.1%	up 7	+3.8%

- a Number of students enrolled and tested during spring 2006: Overall State 37,391, White 30,496, Latino 4,515, Asian 637, African American 439, American Indian 655, Pacific Islander 550, Low Income (Yes) 12,158, Low Income (No) 25,233, Students With Disabilities (Yes) 3,720, Students With Disabilities (No) 33,671, English Language Learners (Yes) 3,970, English Language Learners (No) 33,421.
- b Percentage indicates the percentage of 8th grade science students who scored Proficient (Level 3 or Level 4) on the Utah Core CRT.

